

# Together With



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What's New at OSHA/TOSHA?

## TB Respirator Requirements Changed

OSHA's latest edition of its semiannual regulatory agenda outlines work on new standards, including hexavalent chromium, crystalline silica, noise in construction, and assigned protection factors for respirators. The agenda also signaled OSHA's intent to make changes in other areas, including the withdrawal of certain proposals. A decline in both the production and use of ethylene glycol ethers and their acetates prompted OSHA to withdraw efforts toward a standard for glycol ethers.

OSHA also withdrew its proposal for a standard on occupational exposure to tuberculosis. As a result, OSHA/TOSHA will begin applying the general industry respiratory protection standard (29 CFR 1910.134) for protection against TB. New requirements for those facilities that use respirators for protection against TB include updating the facility's respirator program, complying with amended medical evaluation requirements, annual fit testing, and some training and recordkeeping provisions. OSHA/TOSHA will delay until July 1, 2004, enforcement of these new requirements. OSHA/TOSHA's TB enforcement guidelines are based on the 1994 CDC Guidelines for

TB (MMWR, Vol 43, No. RR-13, October 28, 1994), available at [www.cdc.gov](http://www.cdc.gov). Both agencies recommend that those guidelines be followed in their entirety. However, enforcement activities are limited to those facilities where the CDC has identified workers as having a greater incidence of TB infection than in the general population. Specifically, these workplaces are the following:

- a. health care facilities (hospitals\*)
- b. correctional facilities
- c. long-term care facilities for the elderly
- d. homeless shelters
- e. drug treatment centers

Enforcement of respiratory protection by TOSHA occurs in these facilities in the following circumstances:

- a. When workers enter rooms housing individuals with suspected or confirmed infectious TB
- b. When workers are present during the performance of high hazard procedures on individuals who have suspected or confirmed infectious TB
- c. When emergency-medical-response personnel or others transport, in a closed vehicle, an individual with suspected or confirmed infectious TB

► See RESPIRATOR REQUIREMENTS, Page 2

## Understanding Respirators

What is a respirator? A respirator is a device to protect you from inhaling dangerous substances, such as chemicals and infectious particles. There are several different types of respirators, as described below:

**Escape respirators** are designed to be used only in an emergency, and only to escape from a dangerous area to a safe area. Many of them use a hood with a neck seal instead of a facepiece. They are typically designed for one-time use for a short period, typically 15 minutes to one hour. They are available in a variety of sizes and will fit most adults.

**Particulate respirators** are the simplest, least expensive, and least protective respirators. They only protect against particles. They do not protect against gases or vapors. The commonly known "N-95" is one type of particulate respirator, often used in hospitals to protect against infectious particles such as TB. Particulate respirators are "air-purifying respirators" because they clean particles out of the air as you breathe. Even if you cannot see the particles, there may be too many in the air for this type of respirator to provide adequate protection. If this is in question, monitor the air to determine the particulate concentration.

► See UNDERSTANDING RESPIRATORS, Page 2

## Respirator Requirements

The minimally acceptable level of respiratory protection for TB is the N95 respirator.

\* Health care facilities include hospitals where patients with confirmed or suspected TB are treated or to which they are transported. Coverage of non-hospital health care settings (i.e., doctors' offices, clinics, etc.) includes only personnel present during the performance of high hazard procedures on suspect or active TB patients. Dental health care personnel are covered by the directive only if they treat suspect or active TB patients in a hospital or correctional facility.



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# TOSHA TIPS

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**Condition:** A storage location for gas cylinders used for welding or cutting was inadequate.

**Potential Effects:** Burns, smoke-related injuries and traumatic injuries from fire and/or explosion; foot and leg injuries from falling cylinders.

**Citation:** 29 CFR 1910.253 (b)(2) and 1926.305 (a)(11)

**Recommended Action:** Store compressed gas cylinders for welding or cutting as follows:

- In definitely assigned locations away from elevators, stairs, or gangways
- In locations that are well-ventilated and dry
- At least 20 feet away from grease, oil, or highly combustible materials
- Out of normal or emergency pathways
- Protected from tampering by unauthorized persons
- Protected from objects falling onto them
- Secured to prevent being knocked over

In-plant handling, storage, and utilization of all compressed gases in cylinders shall be in accordance with Compressed Gas Association Pamphlet P-1-1965.

From Page One

## Understanding Respirators

**Chemical cartridge/gas mask respirators** are also known as "air-purifying respirators" because they filter or clean chemical gases and possible particles out of the air as you breathe. This respirator includes a facepiece or mask and a filter/cartridge (if the filter is in a metal shell it is called a canister). Straps secure the facepiece to the head. The cartridge may have a filter to remove particles, charcoal to remove certain chemicals, both, or other parts. When the user inhales, air is pulled through the filter. Gas masks are only effective if used with the correct cartridge or filter for a particular substance. Selecting the proper filter can be a complicated process. There are cartridges available that protect against more than one hazard, but there is no "all-in-one" filter that protects against all substances. You need to know what hazards you will face in order to be certain you are choosing the right filters.

**Powered-air-purifying respirators** use a fan to blow air through the filter to the user. They are easier to breathe through and they need a fully charged battery to work properly. They use the same filters as gas masks, so you need to know what the hazard is, and how much of it is in the air.

A **self-contained breathing apparatus (SCBA)** is the respirator commonly used by firefighters. They use their own air tank to supply clean air so you don't need filters. They also protect against higher concentrations of dangerous chemicals. However, they are very heavy (30 pounds or more) and require very special training to use and maintain them. Also, the air tanks typically last an hour or less depending on their rating and how hard you are breathing.

## THE WALKAROUND

The next stop on our tour of a typical TOSHA inspection is the walkaround. In the Fall 2003 edition of this newsletter we discussed what happens in the opening conference.

After the opening conference, the walkaround begins immediately. All participating parties walk through the workplace and TOSHA will do the following:

- Identify safety and/or health hazards
- Evaluate the employer's safety and health program
- Collect information needed to document hazards
- Observe employees' work activities
- Interview employees

Who goes on the walkaround? The compliance officer, other TOSHA personnel (such as trainees and supervisors), the company management official, and employee representative may all participate on the walkaround. Production areas are evaluated, as well as other areas such as maintenance shops, storage areas, laboratories, warehouse and shipping areas, restrooms, and any outside areas where work is done or storage areas are located. If the inspection is the result of a complaint, the walkaround may be limited to the area of the complaint. However, the TOSHA inspector has the right to expand the inspection if he/she sees the need to evaluate other areas.

If the inspection is being conducted by a TOSHA health compliance officer, or industrial hygienist, screening air samples may be taken to determine the

need for full shift sampling. Full shift samples, if deemed necessary, will be taken on a return visit.

During the inspection, a representative number of employees will be interviewed to determine employee knowledge of hazards to which the employees are exposed, protective measures taken for routine situations, protective measures for emergencies, personal protective equipment availability, personal protective equipment use, availability and use of ventilation, acceptable work practices, and training recall to evaluate training effectiveness. Other items may be discussed as the situation dictates. Interviews are conducted in private.

On the walkaround the following documentation may be collected by TOSHA:

- Employee interview answers recorded
- Photos taken or sketches drawn
- Name, home address, home phone number of the employees exposed to a hazard
- Length and duration of employee exposure to the hazard recorded
- Personal protective equipment in use
- Working conditions (i.e., housekeeping, speed, lighting, etc.)
- Warning signs and labels posted as required
- Measurements taken recorded
- Equipment serial numbers recorded

At the conclusion of the walkaround, all participants will gather for the closing conference.

## Equipment Striking Employees: A Major Hazard

Struck-by injuries continue to be a major hazard faced by employees every day while at work. During FY 2003, in the Southeast United States alone, state and federal OSHA offices investigated 105 fatal injuries that resulted from struck-by hazards. These 105 fatalities accounted for 44% of all the fatality investigations conducted in that time frame in the Southeast. This is an increasing and alarming number.

The majority of these fatalities were caused by motor vehicles that struck employees in their work zones. Some employees were fatally injured by construction equipment on their own sites; however, being struck by motor vehicles operated by the public also accounted for a significant number of fatalities. Also keep in mind that "work zones" are not only construction sites. Other types of occupations are exposed to struck-by hazards in their work zones, such as tow truck drivers, security guards, landscapers, parking attendants, survey crews, and toll booth attendants.

Employees must be continually aware of any traffic around them when working near a roadway, and means must be taken to alert drivers that a work zone is present. Employees must wear the proper high visibility reflective clothing, and proper traffic work zones must be established by using signs, signals and barricades. If the safe work zone cannot be established with the signs, signals and barricades, then flaggers or other appropriate traffic controls must be used. For further information on work zone safety and the OSHA/TOSHA Signs, Signals, and Barricades Standard, visit the OSHA Internet Web Page at [www.osha.gov](http://www.osha.gov), or contact TOSHA at 1-800-249-8510.

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## EARN & LIVE

### A TOSHA CASE FILE SUMMARY

A 43-year old maintenance/clean-up crew member died after inhaling a gas released when he inadvertently mixed two incompatible chemicals. He placed some bleach in a mop bucket containing water and mistakenly added de-liming solution to the bucket. The de-liming solution was made by the same company as other chemicals used for cleaning and was packaged in a similar manner. When the de-liming chemical, which contained phosphoric acid, mixed with the bleach, the solution began to foam and a gas was released, causing the victim and a co-worker to leave the area. Two minutes later the victim began to have symptoms of a heart attack and seizure. He had only a faint pulse and shallow breathing when he was transported to a local hospital where he died.

#### To prevent such an incident from happening:

1. Maintain a Material Safety Data Sheet (MSDS) for each hazardous chemical used and make it readily available to employees.
2. Provide information and training to employees as specified in 29 CFR 1910.1200(h)(1) and (2) on hazardous chemicals in the work area when they are hired, whenever a new chemical is introduced into the work area, and annually.
3. Include training on the physical and health hazards of chemicals in the work area.
4. Caution employees about the potential hazards of mixing incompatible chemicals. This information will be on the MSDS. If there are questions about materials to avoid, call the chemical manufacturer.

